

Stock Screening Model Introduction

This Python based stock screening tool uses five key financial metrics as variables, which can be pre-set by the user prior to use, and further adjusted as desired during the model's use.

These five variables are 1) Return on Investment Capital (ROIC); 2) EBIT Margin; 3) Rate of Revenue Growth over the past 5 years; 4) EBIT Margin Improvement over the past 5 years; and 5) the Current Share Price Relative to it's 52 Week Low.

Each variable has the option of a filter which may be adjusted to either a minimum required threshold, or a user-defined range of values. Each metric can then be weighted according to the user's perceived importance of each financial metric. The weighted output of the filtered companies is then ranked according to their composite score, in descending order of relative attractiveness.

The screening model is flexible and applicable to a variety of different investment styles:

For instance, a **growth investor** may wish to place a higher priority upon high returns on invested capital, positive EBIT margin development and revenue growth, but have less interest in the absolute level of margin or the recent share price trend.

Alternatively, a more **value orientated investor** might deliberately set out to prioritize low returns on invested capital, negative EBIT margin development, and companies with share prices trading close to year lows to generate a list of possible candidates which might benefit from future corporate change. This might arise through the arrival of new management teams; divestment of underperforming businesses; or restructuring any one of which might lead to an improvement in financial metrics in the years to come and positive share price performance.

Stock Screening Model Settings

Since my own style of investment tends to be more growth orientated, I have deliberately set variables to reflect that, and weighted just three of them. These being the revenue growth in recent years, the return on invested capital, and positive EBIT margin improvement.

I deliberately have assigned no weight to the absolute level of EBIT margin since this is effectively already captured in the numerator of the Return on Invested Capital. The idea being that it can be inferred that companies earning high returns on capital are doing so partly as a function of attractive EBIT margins rather than just through low asset intensity

I have assigned a zero weighting to share price performance relative to the 52-week low, on the basis that consistent profit growth should be reflected in a steady upward trend in the share price. Therefore, a company delivering strong revenue and profit growth is unlikely to be trading near its yearly lows.

First and foremost, the most important metric I have chosen to focus on is a minimum requirement that revenue growth should have exceeded 10% over the past five years, which demonstrates some level of volume growth and/or pricing power in the business over and above inflation. I have assigned this requirement a weighting of importance of 55%.

The second most important metric chosen is the return on invested capital, where I have set the filter at a minimum of 15%, the key requirement being that it should comfortably exceed its underlying cost of capital. I have then assigned this requirement a weighting of importance of 40%

Lastly, I have set a filter for companies which have enjoyed some degree of positive EBIT margin expansion over the past five years. However, I have assigned this metric a weighting of only 5% given the dislocation of EBIT margins experienced by most companies over the 2020/2021 COVID period, and the subsequent challenges of tackling cost inflation, which could obscure the true margin potential of many businesses.

The screenshot shows a 'Stock Screening Tool' window. It features a table of filter settings on the left and a results table on the right. The filter settings table has columns for the metric name, 'Minimum Filter', 'Maximum Filter', and 'Weights'. The results table has columns for 'Company' and 'Score'.

	Minimum Filter	Maximum Filter	Weights
ROIC (%)	15		0.4
EBIT Margin (%)			0
52-Week Price Low Relative (%)			0
Revenue Growth (5Y Avg) (%)	10		0.55
EBIT Margin Improvement (5Y Avg) (%)	0		0.05

Run Screening

Company	Score
Hermes International SCA	3.00
Greggs PLC	1.55
Ferrari NV	1.45

Stock Screening Model Output – Hermes International and Greggs Plc

Please Note: The numbers presented within this analysis have been taken from annual reports and subsequently differ slightly from the data within the Excel spreadsheet, taken from Bloomberg.

The output of my demanding weighted filter choices resulted in a short list of only three companies from the original universe of 40, the top two being Hermes and Greggs.

Both appear to be excellent, well managed businesses with high growth potential and particularly attractive returns on invested capital. However, both are quite different, the former being a luxury goods company operating across the globe whilst the latter being a UK only centric food retail business.

Hermes earns by far the best return on invested capital at 53% which is largely a function of its excellent EBIT margins of 42% where it is able to add considerable value added to the luxury products it sells and command premium pricing.

In contrast, the level of value added at Greggs is much lower and restricted to the preparation and heating up of food for its customers. Accordingly, it earns only 10% EBIT margins, but benefits from lower capital intensity than Hermes meaning it can still earn highly competitive returns on invested capital of around 20%

Hermes also has the advantage of being is the faster growing of the two companies, with revenue growth compounding at near 18% over the past five years in contrast to about 12% for Greggs, of which only about half coming from organic growth from existing stores and half from new store openings.

And arguably Hermes revenue growth and future potential is understated relative to the extraordinary customer demand for its luxury products, with long waiting lists but constant constraints on production capacity of what are ultimately hand-crafted leather products. In fact, it's no exaggeration to say that Hermes could probably produce whatever sales numbers it wished if it had the production capacity to support the underlying demand.

In contrast one can justifiably argue that Greggs has more limited room for growth given its market penetration in the UK, however it continues to aggressively invest, and is on track to have capital expenditure of between £250m to £280m this year on store openings and new distribution centres.

These are numbers which would be hard to beat from any established company in the UK, let alone in the retail sector, and they bode well for supporting a continuation of future 10% to 12% revenue growth in its business. Furthermore, it's not beyond the realm of possibility that Greggs excellent management team might one day choose to try to extend its business model to overseas markets.

Hermes clearly has the advantage when it comes to operational leverage in its business model, and has seen EBIT margins expand from 39% to 42% over the past five years, whereas those of Greggs have broadly flatlined at around 10% over the same period – however its important to understand that Greggs did achieve a high of 12.5% EBIT margin in 2021 before post COVID cost inflation pressures started to bite, and its conceivable that we see some margin progression back toward this level as these same cost factors begin to ease, potentially leading to faster profit growth.

Both companies look to be really solid long-term investments with Hermes trading on a forward PE multiple of 45x for what looks like 15% plus long-term earnings growth; and Greggs trading on a forward PE multiple of 20x for 12% to 15% profits growth.

Although the earnings development of the two companies does not appear to be so different the market has far more confidence in the long-term growth potential of Hermes than it does for Greggs. And I suspect everyone following Hermes knows that if it were to one day accelerate its production methods then dramatically faster profits growth could easily be enjoyed.

However, the added attraction of Greggs is its superior potential for cash generation. At the moment the company is investing nearly the entirety of its operating cashflow on growth-related capital investment projects. But were these investments to subside, free cashflow available to pay dividends and/or buy back shares would immediately explode.

To put that in perspective Greggs operating cashflow should be around £340m in the current financial year, so if capital expenditure were to revert back to 2022 levels of only about £100m spent only on its existing retail stores, free cashflow available for distribution to shareholders should be close to 10% of its current market capitalisation, which is highly attractive – especially if used to reduce the share count. And that's one of the reasons why Greggs is unlikely to see its PE multiple de-rate significantly in the event of slower growth

Stock Screening Model Limitations

The model, whilst useful in throwing up a narrow list of companies to focus one's attentions upon, has significant limitations in that it is entirely backward looking at how a company's financial metrics have historically performed.

So, it gives little indication as to how a company's business might perform in the future, on the assumption that markets are generally thought to be efficient the relative share price screen is somewhat indicative of whether things are going right or wrong in any business.

The stock screening model also gives no insight into the future growth opportunities a business might have, or the potential returns it might pay back to shareholders. And nor does it provide any actual valuation metrics which might indicate the investment attractiveness of screened companies, leaving it entirely down to the user to follow up with their own qualitative analysis of the screened ideas.

To help overcome this, and narrow the potential list of investment targets down even further, it would be interesting to capture additional financial metrics about the quality and valuation of the screened businesses.

These could include the following:

- 1) **Capital Expenditure to Depreciation Ratio** – which would serve to highlight companies which are aggressively expanding their overall asset base, and upon which good returns on investment are likely to be earned in the future.
- 2) **Free Cashflow Generation** – a comparison of free cashflow to the market capitalisation, so effectively a theoretical free cashflow yield would be a highly useful screen to identify absolute stock valuation, and attractiveness relative to underlying bond yields.
- 3) **Working Capital to Revenues Ratio** – currently the model only captures the numerator of the ROIC metric, however it would be useful to screen for the denominator too, particularly with things like working capital to understand the quality of a business model; its asset intensity; and the performance of its management team.
- 4) **EBITDA Metrics** – it would also be interesting to screen for current Enterprise Value/EBITDA multiples compared to the historic averages paid by the market, in order to better understand the degree to which a company is cheap or expensive relative to its trading history. This might be particularly useful when looking high growth companies like Hermes and Greggs, to better understand investor perception of future growth prospects.